

REMARKS

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-3, 5-8, and 10-16 are currently pending in this application. Claims 1, 5, and 10 are independent. The remaining claims depend, directly or indirectly, from claims 1, 5, and 10.

Rejection under 35 U.S.C. § 102

Claims 1-3, 5-8, and 10-16 are rejected under 35 U.S.C. § 102 as being anticipated by “Power-Sensitive Multithreaded Architecture,” by Seng (hereinafter “Seng”). This rejection is respectfully traversed.

Upon a complete reading of the Office Action mailed November 6, 2007, it appears that the Examiner is basing the rejection of the claims on the law of inherency. Specifically, the Examiner asserts that power values MAX, TYP, MIN, and TypMax are inherent to an average power value. Further, the Examiner asserts that a peak single cycle derivative and a multi-cycle derivative value are inherent. Applicant respectfully disagrees. To support a rejection based on inherency, “the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” MPEP § 2112 (citing *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)). Applicants respectfully submit that the Examiner has not provided any such fact or reasoning, and therefore has not satisfied the requirements for a §102 rejection based on inherency.

More specifically, reporting single-cycle and multi-cycle derivative values from power simulation values is not something that necessarily flows from the teachings of Seng. Seng relates to power consumption of multithreaded microprocessors. *See* Seng, Abstract. Seng simulates multithreaded execution of microprocessors, and reports the processor configuration of the simulated processor as shown on page 3, Table 2 of Seng. There is no indication whatsoever in Seng of reporting *summary data* as required by the claims of the present application, where summary data includes at least one of single-cycle summary data, multi-cycle summary data, and multi-cycle derivative values. In fact, the cited portion of Seng merely discloses that power consumption under multithreaded execution improves when compared with single-threaded execution. *See* Seng, page 4, Figures 1 and 2. Further, Table 2 of Seng, as cited by the Examiner on page 5 of the Office Action mailed November 6, 2007, does not relate to any power cycle values at all. Rather, Table 2 of Seng only discloses the microprocessor's configuration parameters in a multithreaded execution.

However, multi-threaded execution and single-threaded execution is *not* equivalent to single-cycle power values and multi-cycle derivative values. Multi-threaded vs. single-threaded execution refers to the number of process threads executed simultaneously by a processor. This is completely distinct from multi-cycle and single-cycle derivative power values. As described previously, a single-cycle derivative power value is a value obtained by taking the difference between two associated power values obtained from the simulation of a single cycle (*see* Specification, paragraph [0017], which clearly defines "single cycle derivative"). Further, a peak single cycle derivative value is simply the highest single cycle derivative value. Similarly, multi-cycle derivative data is power data obtained by taking the difference between two power values over multiple cycles (*see* Specification, paragraph [0019]). Clearly, a "cycle" as used in

the claimed invention has nothing to do with threads running on a processor. The Examiner's attempt to equate single-threaded and multi-threaded with single-cycle and multi-cycle power derivatives is therefore inaccurate. By reading the claims in this manner, the Examiner has either read the claimed limitations overly broadly and outside the scope of the present specification, or has mischaracterized the teachings of Seng, which is wholly improper.

Further, as specifically recited in the claimed invention, the derivative value is a difference between two particular associated power values in the simulation. Such a derivative value is not inherent, and is in no way contemplated by Seng. In fact, Seng does not explicitly or inherently require taking a numerical *difference* (i.e., performing a subtraction), as required by the independent claims. Thus, based on the only appropriate meaning of the claim terms, it is clear that Seng is completely silent with respect to single-cycle or multi-cycle derivative values.


In view of the above, the Examiner has clearly failed to show where Seng expressly or inherently describes all the limitations of independent claims 1, 5, and 10. Therefore, the Examiner has also failed to show where Seng expressly or inherently describes all the limitations of pending dependent claims 2, 3, 6-8, and 11-16. Accordingly, the Examiner's contentions do not support a rejection of the claims under 35 U.S.C. § 102, and withdrawal of the rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 03226/073001).

Dated: January 8, 2008

Respectfully submitted,

By 

Thomas K. Scherer
Registration No.: 45,079
OSHA · LIANG LLP
1221 McKinney St., Suite 2800
Houston, Texas 77010
(713) 228-8600
(713) 228-8778 (Fax)
Attorney for Applicant